

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

KREIDER *et al.*

Appl. No. *To be assigned*  
(Divisional of U.S. Appl. No. 09/419,281;  
Filed: October 15, 1999)

Filed: *Herewith*

For: **Methods of Using Chemokine  $\beta$ -6**  
**(as amended herein)**

Art Unit: *To be assigned*

Examiner: *To be assigned*

Atty. Docket: 1488.034000B/EKS/HCC

**First Preliminary Amendment and  
Statement Under 37 C.F.R. § 1.63(d)(2)**

Commissioner for Patents  
Washington, D.C. 20231

Sir:

In advance of prosecution, please amend the application as follows. This Amendment is provided in the following format:

(A) A clean version of each replacement paragraph/section/claim along with clear instructions for entry;

(B) Starting on a separate page, appropriate remarks and arguments. 37 C.F.R. § 1.115; and

(C) Starting on a separate page, a marked-up version entitled: "Version with markings to show changes made."

It is not believed that extensions of time or fees for net addition of claims are required beyond those that may otherwise be provided for in documents accompanying this paper. However, if additional extensions of time are necessary to prevent abandonment of this application, then such extensions of time are hereby petitioned under 37 C.F.R. § 1.136(a), and any fees required therefor (including fees for net addition of claims) are hereby authorized to be charged to our Deposit Account No. 19-0036.

***Amendments***

Please amend the application as follows:

***In the Inventorship:***

Please substitute the pending named inventors with the following:

Brent L. Kreider  
Steven M. Ruben  
Henrik S. Olsen

***In the Title:***

Please substitute the pending title on page 1, line 1, with the following title: **Methods of Using Chemokine  $\beta$ -6.**

***In the Specification:***

Please replace the paragraph beginning at page 1, line 2 with the following paragraph:

This application is a divisional of U.S. Application No. 09/419,281, filed October 15, 1999, which is a divisional of U.S. Application No. 08/995,156, filed December 19, 1997 (now U.S. Patent No. 6,028,169), which claims the benefit of U.S. Provisional Application No. 60/042,269, filed March 31, 1997. All of said applications are herein incorporated by reference.

***In the Claims***

Please cancel claims 1-40.

Please add the following new claims.

41. (New) A method of inhibiting the activation or mobilization of eosinophils in an individual in need thereof comprising administering to said individual a therapeutically effective amount of a polypeptide consisting of an amino acid sequence shown in any one of SEQ ID NOs:23-114.

42. (New) The method of claim 41, wherein said polypeptide is fused to polyethylene glycol.
43. (New) The method of claim 41, wherein said polypeptide is fused to a heterologous polypeptide.
44. (New) The method of claim 41, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:23.
45. (New) The method of claim 41, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO: 24.
46. (New) The method of claim 41, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:25.
47. (New) The method of claim 41, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:26.
48. (New) The method of claim 41, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:27.
49. (New) The method of claim 41, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:28.
50. (New) The method of claim 41, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:29.
51. (New) The method of claim 41, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:30.

52. (New) The method of claim 41, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:31.
53. (New) The method of claim 41, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:32.
54. (New) The method of claim 41, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:33.
55. (New) The method of claim 41, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:34.
56. (New) The method of claim 41, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:35.
57. (New) The method of claim 41, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:36.
58. (New) The method of claim 41, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:37.
59. (New) The method of claim 41, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:38.
60. (New) The method of claim 41, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:39.
61. (New) The method of claim 41, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:40.

62. (New) The method of claim 41, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:41.
63. (New) The method of claim 41, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:42.
64. (New) The method of claim 41, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:43.
65. (New) The method of claim 41, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:44.
66. (New) The method of claim 41, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:45.
67. (New) The method of claim 41, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:46.
68. (New) The method of claim 41, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:47.
69. (New) The method of claim 41, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:48.
70. (New) The method of claim 41, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:49.
71. (New) The method of claim 41, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:50.

72. (New) The method of claim 41, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:51.
73. (New) The method of claim 41, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:52.
74. (New) The method of claim 41, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:53.
75. (New) The method of claim 41, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:54.
76. (New) The method of claim 41, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:55.
77. (New) The method of claim 41, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:56.
78. (New) The method of claim 41, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:57.
79. (New) The method of claim 41, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:58.
80. (New) The method of claim 41, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:59.
81. (New) The method of claim 41, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:60.

82. (New) The method of claim 41, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:61.
83. (New) The method of claim 41, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:62.
84. (New) The method of claim 41, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:63.
85. (New) The method of claim 41, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:64.
86. (New) The method of claim 41, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:65.
87. (New) The method of claim 41, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:66.
88. (New) The method of claim 41, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:67.
89. (New) The method of claim 41, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:68.
90. (New) The method of claim 41, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:69.
91. (New) The method of claim 41, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:70.

92. (New) The method of claim 41, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:71.
93. (New) The method of claim 41, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:72.
94. (New) The method of claim 41, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:73.
95. (New) The method of claim 41, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:74.
96. (New) The method of claim 41, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:75.
97. (New) The method of claim 41, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:76.
98. (New) The method of claim 41, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:77.
99. (New) The method of claim 41, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:78.
100. (New) The method of claim 41, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:79.
101. (New) The method of claim 41, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:80.



102. (New) The method of claim 41, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:81.
103. (New) The method of claim 41, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:82.
104. (New) The method of claim 41, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:83.
105. (New) The method of claim 41, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:84.
106. (New) The method of claim 41, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:85.
107. (New) The method of claim 41, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:86.
108. (New) The method of claim 41, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:87.
109. (New) The method of claim 41, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:88.
110. (New) The method of claim 41, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:89.
111. (New) The method of claim 41, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:90.

112. (New) The method of claim 41, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:91.
113. (New) The method of claim 41, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:92.
114. (New) The method of claim 41, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:93.
115. (New) The method of claim 41, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:94.
116. (New) The method of claim 41, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:95.
117. (New) The method of claim 41, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:96.
118. (New) The method of claim 41, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:97.
119. (New) The method of claim 41, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:98.
120. (New) The method of claim 41, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:99.
121. (New) The method of claim 41, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:100.

122. (New) The method of claim 41, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:101.
123. (New) The method of claim 41, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:102.
124. (New) The method of claim 41, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:103.
125. (New) The method of claim 41, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:104.
126. (New) The method of claim 41, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:105.
127. (New) The method of claim 41, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:106.
128. (New) The method of claim 41, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:107.
129. (New) The method of claim 41, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:108.
130. (New) The method of claim 41, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:109.
131. (New) The method of claim 41, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:110.

132. (New) The method of claim 41, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:111.
133. (New) The method of claim 41, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:112.
134. (New) The method of claim 41, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:113.
135. (New) The method of claim 41, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:114.
136. (New) A method of inhibiting the activation or mobilization of basophils in an individual in need thereof comprising administering to said individual a therapeutically effective amount of a polypeptide consisting of an amino acid sequence shown in any one of SEQ ID NOs:23-114.
137. (New) The method of claim 136, wherein said polypeptide is fused to polyethylene glycol.
138. (New) The method of claim 136, wherein said polypeptide is fused to a heterologous polypeptide.
139. (New) The method of claim 136, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:23.
140. (New) The method of claim 136, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO: 24.

141. (New) The method of claim 136, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:25.
142. (New) The method of claim 136, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:26.
143. (New) The method of claim 136, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:27.
144. (New) The method of claim 136, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:28.
145. (New) The method of claim 136, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:29.
146. (New) The method of claim 136, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:30.
147. (New) The method of claim 136, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:31.
148. (New) The method of claim 136, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:32.
149. (New) The method of claim 136, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:33.
150. (New) The method of claim 136, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:34.

151. (New) The method of claim 136, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:35.
152. (New) The method of claim 136, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:36.
153. (New) The method of claim 136, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:37.
154. (New) The method of claim 136, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:38.
155. (New) The method of claim 136, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:39.
156. (New) The method of claim 136, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:40.
157. (New) The method of claim 136, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:41.
158. (New) The method of claim 136, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:42.
159. (New) The method of claim 136, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:43.
160. (New) The method of claim 136, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:44.

161. (New) The method of claim 136, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:45.
162. (New) The method of claim 136, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:46.
163. (New) The method of claim 136, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:47.
164. (New) The method of claim 136, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:48.
165. (New) The method of claim 136, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:49.
166. (New) The method of claim 136, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:50.
167. (New) The method of claim 136, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:51.
168. (New) The method of claim 136, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:52.
169. (New) The method of claim 136, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:53.
170. (New) The method of claim 136, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:54.

171. (New) The method of claim 136, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:55.
172. (New) The method of claim 136, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:56.
173. (New) The method of claim 136, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:57.
174. (New) The method of claim 136, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:58.
175. (New) The method of claim 136, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:59.
176. (New) The method of claim 136, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:60.
177. (New) The method of claim 136, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:61.
178. (New) The method of claim 136, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:62.
179. (New) The method of claim 136, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:63.
180. (New) The method of claim 136, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:64.



181. (New) The method of claim 136, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:65.
182. (New) The method of claim 136, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:66.
183. (New) The method of claim 136, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:67.
184. (New) The method of claim 136, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:68.
185. (New) The method of claim 136, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:69.
186. (New) The method of claim 136, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:70.
187. (New) The method of claim 136, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:71.
188. (New) The method of claim 136, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:72.
189. (New) The method of claim 136, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:73.
190. (New) The method of claim 136, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:74.

191. (New) The method of claim 136, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:75.
192. (New) The method of claim 136, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:76.
193. (New) The method of claim 136, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:77.
194. (New) The method of claim 136, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:78.
195. (New) The method of claim 136, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:79.
196. (New) The method of claim 136, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:80.
197. (New) The method of claim 136, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:81.
198. (New) The method of claim 136, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:82.
199. (New) The method of claim 136, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:83.
200. (New) The method of claim 136, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:84.

201. (New) The method of claim 136, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:85.
202. (New) The method of claim 136, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:86.
203. (New) The method of claim 136, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:87.
204. (New) The method of claim 136, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:88.
205. (New) The method of claim 136, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:89.
206. (New) The method of claim 136, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:90.
207. (New) The method of claim 136, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:91.
208. (New) The method of claim 136, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:92.
209. (New) The method of claim 136, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:93.
210. (New) The method of claim 136, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:94.

211. (New) The method of claim 136, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:95.
212. (New) The method of claim 136, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:96.
213. (New) The method of claim 136, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:97.
214. (New) The method of claim 136, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:98.
215. (New) The method of claim 136, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:99.
216. (New) The method of claim 136, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:100.
217. (New) The method of claim 136, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:101.
218. (New) The method of claim 136, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:102.
219. (New) The method of claim 136, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:103.
220. (New) The method of claim 136, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:104.

221. (New) The method of claim 136, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:105.
222. (New) The method of claim 136, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:106.
223. (New) The method of claim 136, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:107.
224. (New) The method of claim 136, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:108.
225. (New) The method of claim 136, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:109.
226. (New) The method of claim 136, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:110.
227. (New) The method of claim 136, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:111.
228. (New) The method of claim 136, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:112.
229. (New) The method of claim 136, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:113.
230. (New) The method of claim 136, wherein said polypeptide consists of the amino acid sequence of SEQ ID NO:114.

***Remarks***

Upon entry of the foregoing amendment, claims 41-230 are pending in the application, with claims 41 and 136 being the independent claims. Claims 1-40 are being canceled without prejudice to or disclaimer of the subject matter therein. Applicants reserve the right to pursue the subject matter of claims 1-40 in one or more continuing applications. New claims 41-230 are sought to be added. These changes are believed to introduce no new matter, and their entry is respectfully requested.

Support for the new claims can be found throughout the specification and original claims. For example, support for independent claims 41 and 136 can be found in original claim 37 and in the specification at page 8, lines 23-25. Support for the dependent claims can be found, for example, in SEQ ID NOs:23-114 and in the specification at pages 35-39, page 28, lines 6-19 and page 31, lines 1-26.

***Statement Under 37 C.F.R. § 1.63(d)(2)***

As required under 37 C.F.R. § 1.63(d)(2), Applicants hereby request the deletion of Marco Baggiolini from the inventorship of the above-captioned application. This change in inventorship is necessitated by the above amendment deleting claims 1-40. As Marco Baggiolini is not an inventor of the subject matter of any of the added claims, his deletion from the inventorship is believed proper.

***Conclusion***

Applicants believe that this application is now in condition for substantive examination. Early notice to this effect is respectfully requested. The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.



Helene C. Carlson  
Agent for Applicants  
Registration No. 47,473

Date: Jan. 25, 2002

1100 New York Avenue, N.W.  
Suite 600  
Washington, D.C. 20005-3934  
(202) 371-2600

**Versions with Markings to show changes made**

***In the Inventorship:***

Brent L. Kreider, Steven M. Ruben, Henrik S. Olsen, [Marco Baggiolini]

***In the Title:***

Page 1, line 1:

**Methods of Using Chemokine  $\beta$ -6.**

***In the Specification:***

The paragraph beginning at page 1, line 2:

This application is a divisional of U.S. Application No. 09/419,281, filed October 15, 1999,  
which is a divisional [continuation] of U.S. Application No. 08/995,156, filed December 19, 1997  
(now U.S. Patent No. 6,028,169)[, presently allowed], which claims the benefit of U.S. Provisional  
Application No. 60/042,269, filed March 31, 1997[, both of which disclosures are herein  
incorporated by reference]. All of said applications are herein incorporated by reference.

***In the claims:***

Claims 1-40 have been cancelled.

Claims 41-230 have been newly added.



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

KREIDER *et al.*

Appl. No. *To be assigned*  
(Divisional of U.S. Appl. No. 09/419,281;  
Filed: October 15, 1999)

Filed: *Herewith*

For: **Methods of Using Chemokine  $\beta$ -6**  
**(as amended herein)**

Art Unit: *To be assigned*

Examiner: *To be assigned*

Atty. Docket: 1488.034000B/EKS/HCC

**Second Preliminary Amendment**

Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

In advance of prosecution, please amend the application as follows. This Amendment is provided in the following format:

- (A) A clean version of each replacement paragraph/section/claim along with clear instructions for entry;
- (B) Starting on a separate page, appropriate remarks and arguments. 37 C.F.R. § 1.115; and
- (C) Starting on a separate page, a marked-up version entitled: "Version with markings to show changes made."

It is not believed that extensions of time or fees for net addition of claims are required beyond those that may otherwise be provided for in documents accompanying this paper. However, if additional extensions of time are necessary to prevent abandonment of this application, then such extensions of time are hereby petitioned under 37 C.F.R. § 1.136(a), and any fees required therefor (including fees for net addition of claims) are hereby authorized to be charged to our Deposit Account No. 19-0036.

### ***Amendments***

Please amend the application as follows:

#### ***In the Specification:***

Please replace the paragraph beginning at page 12, line 3, with the following paragraph:

FIG. 11A and 11B illustrate the effect of Ck $\beta$ -6 on histamine and LTC<sub>4</sub> release from human eosinophils and the ability of anti-CCR3 to block such activity.

Please replace the paragraph beginning at page 14, line 16, with the following paragraph:

In accordance with an aspect of the present invention, there is provided an isolated nucleic acid (polynucleotide) which encodes for the full-length or mature polypeptide having the deduced amino acid sequence of Figure 1 (SEQ ID NO:2) or for the mature polypeptide encoded by the cDNA of the clone deposited at the American Type Culture Collection, 10801 University Boulevard, Manassas, Virginia 20110-2209, as ATCC Deposit No. 75703 on March 10, 1994.

Please replace the text at page 61, line 11, with the following text:

#### **Table 2**

Please replace the text at page 62, line 8, with the following text:

#### **Table 3**

Please replace the text at page 63, line 3, with the following text:

#### **Table 4**

Please replace the paragraph beginning at page 101, line 24, with the following paragraph:

The effect of Ck $\beta$ -6 on the distribution of the primitive hematopoietic progenitors in peripheral blood, spleen, and bone marrow was studied in 16 week old C57B1/6 mice (about 20 g).

In the first experiment, 3 mice were injected i.p. daily with 1 mg/kg Ck $\beta$ -6 or saline for 2 days and analyzed 24 hours after the last injection. In the second experiment, another 3 mice were injected i.p. daily with 1 mg/kg Ck $\beta$ -6 or saline for 4 days and analyzed 24 hours after the last injection. In both the experiments, the blood of each animal was collected by cardiac puncture and the mice were sacrificed to obtain bone marrow and spleens. The indicated number of cells from each of the tissues was then plated in duplicates in agar-containing medium in the presence of 5 ng/ml IL-3, 50 ng/ml SCF, 5 ng/ml M-CSF and 10 ng/ml IL-1 $\alpha$  and incubated for 14 days. In the 2 experiments, the data from the different animals were pooled and expressed as mean  $\pm$  S.D. The results of both experiments shows that Ck $\beta$ -6 mobilize stem cells from bone marrow to peripheral blood (Tables 2 and 3). In the first experiment, after 2 days of treatment with Ck $\beta$ -6, the frequency of HPP-CFC, LPP-CFC and immature cells in peripheral blood increased significantly over the controls. No changes were observed in the spleen and a significant decrement of HPP-CFC was observed in the bone marrow (Table 2). In the second experiment, after 4 days of treatment with Ck $\beta$ -6, the same significant increment of HPP-CFC, LPP-CFC and immature cells frequency was observed in peripheral blood. A significant increment of immature cells frequency was observed in the spleen and a significant decrement of HPP-CFC and LPP-CFC was observed in the bone marrow Table 3. In particular it is important to note the presence of immature hematopoietic cells in the peripheral blood after the injection of Ck $\beta$ -6. The effect was observed in the animals treated with Ck $\beta$ -6 was not due to toxicity as the FACScan profile of the leukocyte composition of both the control and the mice treated with Ck $\beta$ -6 is identical Table 4.

***Remarks***

The specification has been amended to update the address of the ATCC and to correct typographical errors. No new matter has been added by these amendments.

***Conclusion***

Applicants believe that this application is in condition for substantive examination. Early notice to this effect is respectfully requested. The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.



Helene C. Carlson  
Agent for Applicants  
Registration No. 47,473

Date: Jan. 25, 2002

1100 New York Avenue, N.W.  
Suite 600  
Washington, D.C. 20005-3934  
(202) 371-2600

**Versions with Markings to show changes made**

***In the Specification:***

The paragraph beginning at page 12, line 3:

FIG. 11A and 11B illustrate[s] the effect of Ck $\beta$ -6 on histamine and LTC<sub>4</sub> release from human eosinophils and the ability of anti-CCR3 to block such activity.

The paragraph beginning at page 14, line 16:

In accordance with an aspect of the present invention, there is provided an isolated nucleic acid (polynucleotide) which encodes for the full-length or mature polypeptide having the deduced amino acid sequence of Figure 1 (SEQ ID NO:2) or for the mature polypeptide encoded by the cDNA of the clone deposited at the American Type Culture Collection, [12301 Parklawn Drive, Rockville, Maryland 20852]10801 University Boulevard, Manassas, Virginia 20110-2209, as ATCC Deposit No. 75703 on March 10, 1994.

The text at page 61, line 11:

**[Table 1]Table 2**

The text at page 62, line 8:

**[Table 2]Table 3**

The text at page 63, line 3:

**[Table 3]Table 4**

The paragraph beginning at page 101, line 24:

The effect of Ck $\beta$ -6 on the distribution of the primitive hematopoietic progenitors in peripheral blood, spleen, and bone marrow was studied in 16 week old C57B1/6 mice (about 20 g). In the first experiment, 3 mice were injected i.p. daily with 1 mg/kg Ck $\beta$ -6 or saline for 2 days and analyzed 24 hours after the last injection. In the second experiment, another 3 mice were injected i.p. daily with 1 mg/kg Ck $\beta$ -6 or saline for 4 days and analyzed 24 hours after the last injection. In both the experiments, the blood of each animal was collected by cardiac puncture and the mice were sacrificed to obtain bone marrow and spleens. The indicated number of cells from each of the tissues was then plated in duplicates in agar-containing medium in the presence of 5 ng/ml IL-3, 50 ng/ml SCF, 5 ng/ml M-CSF and 10 ng/ml IL-1a and incubated for 14 days. In the 2 experiments, the data from the different animals were pooled and expressed as mean  $\pm$  S.D. The results of both experiments shows that Ck $\beta$ -6 mobilize stem cells from bone marrow to peripheral blood [[Tables 1 and 2]](Tables 2 and 3). In the first experiment, after 2 days of treatment with Ck $\beta$ -6, the frequency of HPP-CFC, LPP-CFC and immature cells in peripheral blood increased significantly over the controls. No changes were observed in the spleen and a significant decrement of HPP-CFC was observed in the bone marrow [[Table 1]](Table 2). In the second experiment, after 4 days of treatment with Ck $\beta$ -6, the same significant increment of HPP-CFC, LPP-CFC and immature cells frequency was observed in peripheral blood. A significant increment of immature cells frequency was observed in the spleen and a significant decrement of HPP-CFC and LPP-CFC was observed in the bone marrow [[Table 2]]Table 3. In particular it is important to note the presence of immature hematopoietic cells in the peripheral blood after the injection of Ck $\beta$ -6. The effect was observed in the animals treated with Ck $\beta$ -6 was not due to toxicity as the FACScan profile of the leukocyte composition of both the control and the mice treated with Ck $\beta$ -6 is identical [[Table 3]]Table 4.